

# Summer Term Maths Year 10

## Linking ratios and fractions

Day  
**1**  
Week 5

**1** The ratio of  $a$  to  $b$  is  $3 : 4$ .

Rosie says that ' $a$  is  $\frac{3}{4}$  of  $b$ '

Jack says that ' $a$  is  $\frac{3}{7}$  of  $b$ '

(a) Explain why Rosie is correct.

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(b) What has Jack worked out?

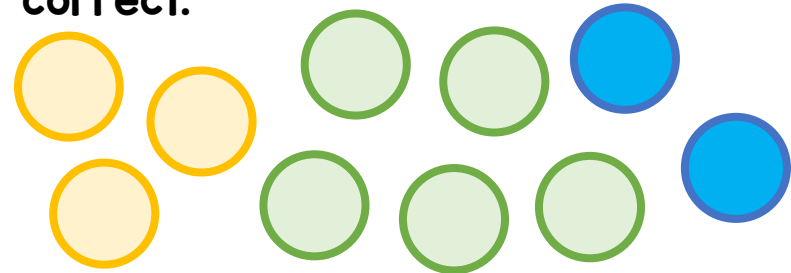
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**2** The ratio of  $c$  to  $d$  is  $2 : 3$ .

(a) What fraction of  $d$  is  $c$ ?

(b) What fraction of  $c$  is  $d$ ?

**3** Circle the statements that are correct.



(a)  $\frac{3}{10}$  of the counters are yellow

(b) The ratio of yellow to green is  $5 : 3$

(c) The number of yellow counters is

$\frac{3}{8}$  the number of green counters.

(d) The number of blue counters is

$\frac{2}{5}$  the number of green counters.

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- 4 Use the bar model to complete the statements.



(a) The ratio of orange to blue is

(b) The fraction of blue parts is  $\frac{\text{input}}{\text{input}}$

(c) Blue is  $\frac{\text{input}}{\text{input}}$  of orange.

(d) Orange is  $\frac{\text{input}}{\text{input}}$  of blue.

- 5 Draw a bar model to represent the statement "orange is  $\frac{4}{5}$  of blue".

- 6 (a) If a is  $\frac{2}{7}$  of b what fraction of a is b?

(b) If c is  $\frac{4}{3}$  of d what fraction of c is d?

- 7 X is  $\frac{3}{5}$  of Y and Z is  $\frac{2}{3}$  of X.

(a) Draw a diagram to represent the parts of X to Y to Z.

(b) What fraction of Z is Y?